

REMARKS

Claims 1-21 are pending in this application. Claims 18-21 have been amended. No new matter has been added. Favorable reconsideration and allowance of the pending claims are respectfully requested.

Claim Objections

Claims 18-21 have been amended as suggested by the Examiner to recite a “computer readable medium including stored computer program instructions that executed by a computer.” Accordingly, reconsideration and withdrawal of the claim objections are respectfully requested.

Claim Rejections

Claims 1-21 were rejected under 35 U.S.C. § 103(a) as being unpatentable over United States Patent Number (USPN) 6,714,985 to Malagrino et al. (“Malagrino”) in view of U.S. Patent Application No. 2002/0095512 to Rana et al. (“Rana”) and in further view of USPN 6,453,357 to Crow et al. (“Crow”). Applicant respectfully traverses the rejection.

Independent claim 1 recites:

“translating said first address into a second address without reassembling said packet fragments into said packet;

“determining whether all packet fragments for said packet have been received by determining a status of said more bit for each packet fragment, collecting offset values in a verification table, indexing collected offset values by position in said verification table, and evaluating said collected offset values to identify any missing positions between said starting position and said ending position; and

sending said packet fragments using said second address.”

Independent claims 11, 13, 15, and 18 recite similar features. Applicant submits that independent claims 1, 11, 13, 15, and 18 are non-obvious in view of Malagrino, Rana, and Crow, regardless of whether such references are taken alone or in combination.

According to the Office Action, at pages 5-6, “the combined system (Malagrino – Rana) are silent to disclosing a source node to send packet fragments for a packet having a first address; and an intermediate node to receive packet fragments and to translate said first address to a second address; and sending said packet fragments using said second address.”

To remedy this admitted deficiency, the Office Action relies on Crow. According to the Office Action, at pages 6-7, Crow discloses “An intermediate node (see figure 1, router 16) translating first address into a second address (see col. 6, lines 28-29, col. 6, lines 63-65, col.. 5, lines 39-41, col. 7, lines 16-20) without reassembling (see col. 6, lines 47-49, accordingly, secondary fragments 34 delivered out-of-order are translated as soon as the primary fragment 32 is received at the router 16) packet fragments into packet (col.. 6, lines 60-63).”

In view of the above, Crow clearly does not wait for all fragments to be received prior to performing address translation. Because the router 16 translates second fragments 32 as soon as the primary fragment 32 is received at the router 16 in order to reduce delay, Crow, in fact, teaches away from “determining whether all packet fragments for said packet have been received” since waiting for all fragments would increase delay contrary to the principle of operation of Crow. Accordingly, the teachings of Crow are inconsistent with the combined system of Malagrino and Rana.

Malagrino teaches determining whether all packet fragments have been received by comparing a valid CLEN field of a first fragment to a valid TLEN field of the first fragment. The CLEN field contains the sum of lengths of all frame fragments that have been received, which is populated when the first fragment entry is created and is then updated as each subsequent frame fragment arrives. The TLEN field contains the total length of a reassembled fragmented packet, which is populated with a zero value when the first fragment entry is created and is updated with a valid value when the fragment carrying the total length (i.e., the fragment with MF=0) is received. The CLEN and TLEN fields are only valid for the first fragment. When the CLEN field of the first fragment equals the TLEN field of the first fragment for a given packet, the reassembly process starts and the packet is assembled.

Specifically, Malagrino teaches:

In accordance with the invention, the packet reassembly process takes place when the packet total length (TLEN) value in field 756 equals the packet current length (CLEN) value stored in field 754 of the CAM subsystem 700. In this case, the CAM subsystem 700 is searched for references to all fragments 212 belonging to the particular packet 210 that is to be reassembled. The first fragment of this packet is identified as having the fragment offset value in field 114 of its header equal to zero; this "zero offset" fragment is identified by a predetermined COS value and a valid IDX field 724. Note that a fragment 212 may be distinguished from a packet 210 based on the states of the MF flag 112 and the fragment offset field 114. *See col. 10, lines 31-43.*

In view of the above, Malagrino clearly teaches reassembly of the packet when all packets fragments have been received. Thus, Malagrino is inconsistent with the teachings of Crow. Namely, Malagrino is not only silent as to address translation, but, in fact, teaches away from "translating said first address into a second address without reassembling said packet fragments into said packet."

Rana was relied on to teach collecting offset values and does not remedy the deficiencies of Crow and Malagrino discussed above.

Therefore, even if Malagrino, Rana, and Crow could be combined, which Applicant does not admit, such combination does not teach or suggest the features of independent claims 1, 11, 13, 15, and 18. Furthermore, if an independent claim is non-obvious under 35 U.S.C. § 103, then any claim depending therefrom is non-obvious. *See e.g., MPEP § 2143.03.*

For at least the reasons set forth above, Applicant submits that independent claims 1, 11, 13, 15, and 18 are allowable and that dependent claims 2-10, 12, 14, 16, 17, and 19-21 are allowable by virtue of their dependency, as well as on their own merits. Accordingly, removal of the § 103(a) rejection of claims 1-21 is respectfully requested.

Applicant does not otherwise concede, however, the correctness of the Office Action's rejection with respect to any of the dependent claims discussed above. Accordingly, Applicant hereby reserves the right to make additional arguments as may be necessary to further distinguish the dependent claims from the cited references, taken

alone or in combination, based on additional features contained in the dependent claims that were not discussed above. A detailed discussion of these differences is believed to be unnecessary at this time in view of the basic differences in the independent claims pointed out above.

It is believed that claims 1-21 are in allowable form. Accordingly, a timely Notice of Allowance to this effect is earnestly solicited.

In the event that the Examiner does not believe that this case is in condition for allowance, Applicant nevertheless requests consideration of the arguments as well as entry of the claim amendments. It is noted that the amendments to claims 18-21:

- (i) were not necessitated by any grounds of rejection;
- (ii) are minor amendments to address informalities noted by the Examiner;
- (iii) were suggested by the Examiner;
- (iv) clearly overcome the claim objection; and
- (v) place the case in better form for appeal.

The Examiner is invited to contact the undersigned at 724-933-9344 to discuss any matter concerning this application.

Respectfully submitted,

KACVINSKY LLC



Robert V. Racunas, Reg. No. 43,027
Under 37 CFR 1.34(a)

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4500 Brooktree Road, Suite 102
Wexford, PA 15090